

NOTES

ACCORDING to arrangements made since the death of Prof. J. C. Poggendorff, the *Annalen der Physik und Chemie* will in future be edited by Prof. Dr. G. Wiedemann, of Leipzig, assisted by Prof. Helmholtz and the Physical Society of Berlin. Prof. Wiedemann possesses admirable qualities for the new position, and under his supervision this well-known scientific journal will at least lose none of its former valuable features. The first number of the *Beiblätter*, the newly-founded adjunct to the *Annalen*, has already been issued. It will not only offer a review of contemporary physical research, but will seek to replace the supplementary volumes of the *Annalen*.

THE Council of the Royal Society of Edinburgh has awarded the Macdougall-Brisbane Gold Medal to Mr. Buchan for his paper on the diurnal oscillation of the barometer, as forming one of an important series of contributions by him to the advancement of meteorological science.

THE great Von Baer medal, worth over 1,000 roubles, and bestowed but once in three years, has been given by the St. Petersburg Academy of Sciences, to Dr. A. Götze, Professor of Zoology at Strasburg, in recognition of his remarkable work "Die Entwicklungsgeschichte der Unke."

A MEDAL to commemorate the part taken by the Institute of France in the observation of the transit of Venus has been struck at the national mint. It bears the representation of a female passing before the car of Apollo, with the motto in Latin, "Quo distent spatio, sidera juncta docent." Each member of the Institute has received a silver medal, as well as the heads of the mission; the assistants received a bronze one. A medal has been cast in gold and presented to M. Dumas, the President of the Transit Commission. The expenses were defrayed by subscription among the members of the Institute.

DR. STRAUDBERG, the president of the Swedish Academy of Sciences, died suddenly in Stockholm on February 5.

THE Norwegian Government proposes to send out a vessel during this year for the purpose of deep-sea exploration in the Atlantic. A credit of 103,000 kronen has been sought from the national Parliament to cover the expense of the expedition.

BARON BARTH, whose sad end at Loanda we mentioned last week, belonged to one of the oldest families of the Bavarian nobility. Although but thirty-one at the time of his death, he had already won a name by valuable researches on the nature of the Swiss glaciers, and by geological investigations in various parts of Europe.

FOR a number of years the University of Jena has been unable from lack of funds to meet the demands of modern university education, by the increase of professorships, establishment of scientific collections, &c. So severe has been the check upon the growth of the institution, that its friends have finally set on foot energetic measures to obtain a large increase in the annual grants from the various grand ducal governments upon which it depends for support. Saxe-Weimar has already promised an addition of 40,000 marks, and it is probable that this historic university will soon be relieved from its embarrassments.

WE regret to announce the death of the eminent surgeon, Sir William Fergusson, Bart., on Saturday last, in his sixty-ninth year.

WORK is about to be commenced on the new buildings for the University of Strasburg. They will be situated to the north-east of the City, with which they will be connected by a broad promenade, and will provide accommodation for about 1,500 students. The Government grant for the purpose amounts to 4½ millions of marks.

THE Hunterian Oration at the Royal College of Surgeons was delivered on Tuesday by Sir James Paget, in presence of the Prince of Wales, and a large and brilliant company. Sir James sketched the career, and pointed out the quantity, the wide range, and importance of the work done by Hunter.

AS Prof. Kirchhoff refused the directorship of the Sun Observatory at Berlin, a Committee of Direction has been appointed, consisting of Professors Kirchhoff, Förster, and Awers.

AMONG the Bills to be brought before Parliament this session is one by Mr. Hardy "to make further provision respecting the Universities of Oxford and Cambridge, and the colleges therein."

ON Thursday last, Prof. Alexander Agassiz, who has been on a visit to this country for the purpose of investigating the results of the *Challenger* Expedition, embarked at Liverpool on board the White Star steamer *Britannic* on his return home. On the Wednesday evening he was entertained at dinner by the members of the Liverpool Art Club, and on Thursday, after visiting the Library and Museum of this town he was invited by the Mayor to lunch with the members of the library and museum committee at the town hall.

DR. N. V. KONKOLY, the director of the O. Gyalla Observatory in Hungary, is at present engaged in an extensive series of observations upon the spectra of the fixed stars. In the February session of the Hungarian Academy of Sciences he gave the results obtained with 160 stars. Vogel's division into three typical classes, white, yellow, and red, is followed. An interesting observation was made upon β Lyræ. The bright bands in its spectrum detected by Vogel in 1871 have now entirely disappeared, and were probably due to an astral protuberance. The same astronomer laid also before the Academy a carefully prepared record of all shooting stars observed in Hungary during the past six years. Their number amounts to about 2,000.

LORD NORTHBROOK has presented to Oxford University a valuable collection of skins of the game birds of India, collected for him by Mr. A. O. Hume, C.B., a distinguished Indian ornithologist. Lord Northbrook, in a letter to Dr. Acland, assures him that the collection is very perfect, if not unique.

A SINGULAR case has been tried at Paris. A manufacturer of gelatine complained that the water supplied by the new city waterworks was too good for him, and that he could not continue the manufacture of his gelatine. He claimed about 3,000% damages, but his suit was dismissed with costs.

AT the next session of the French Association for the Advancement of Science, in August, the Geological Society of Normandy will organise an exhibition of all the geological and paleontological products of the five departments which compose that old province.

WE have received the first two numbers of a new monthly Italian journal, *Ellettricità*. It is published at Florence.

WE regret that our space only admits of our acknowledging the receipt of the *Proceedings* of the Liverpool Literary and Philosophical Society for 1875-6. This volume, like many of its predecessors, contains a considerable number of papers of real value in various departments of science. Messrs. Longmans and Co., are the London publishers.

THE Report of the Committee of the East Kent Natural History Society contains some forcible remarks on the condition of provincial museums in the same direction as those of Prof. Boyd Dawkins, which we reported some weeks ago. It is shown that the rates now squandered in support of those miscellaneous and motley gatherings, and incoherent medleys vaguely called museums, would suffice for the formation and mainten-

ance of museums worthily so named, and admirably adapted by judicious selection and arrangement to forward the education of our youth, and the direction of all classes of the people in the study of natural science. But, so far from promoting this worthy end, the managers of many provincial museums seem to understand nothing more than the establishment of unmeaning curiosity shops, better fitted to amaze the eyes and puzzle the brains of the groundlings, than to convey rational amusement and instruction to the people. Thus the study of the sciences of natural history is rather retarded than advanced, and the prevailing ignorance maintained and confirmed. Local museums should be adapted to the best mental culture. They ought to have a few good preparations, whether exotic or native, to exhibit plainly the general principles of nature, and systematic sets of many specimens to display particularly the natural history of the district; while the needless and grievous expense of room and money, caused by the acquisition and preservation of a gallimaufry of unsuitable objects, should be most strictly avoided. The rapid spread of knowledge, the report states, will soon convince the rate-paying public that their rates should be expended with at least some regard to the instruction of the rising generation. We sincerely hope so.

UNDER the heading, "Can Birds Count?" Mr. C. W. Wade, of Magdalen College, Oxford, writes as follows:—"I have often noticed that crows crowded on Sundays to a certain place, where, on the seventh day a friend of mine was in the habit of amusing himself by placing a quantity of broken biscuit on his window-sill; he had time for this only on the Sunday morning, and during the week no food was so presented. We noticed that on the Sundays a crowd of the birds came about the window, whereas on other days no special sign of excitement was visible among them. The opinion I formed of their power to count the days as they passed has been strengthened by hearing the following story." Mr. Wade then states that a gentleman much troubled by the depredation of crows built a shed at a distance from his house, where he took up position with gun and ammunition. After the first shot the crows would not return, so the gentleman took a friend with him to the shed and then sent him away, he himself remaining; but the crows kept out of range. Taking others with him up to the number of twelve, and sending them off separately, the result was the same. At thirteen, however, the crows seem to have lost count, and returned. To be fully credible the account ought to be first-hand, as it is not, and based on a regular series of experiments.

ANY information on the prospects of the future supplies to this country of Russian boxwood is a matter of some importance, therefore it is interesting, if not entirely satisfactory, to read in a recent report from Poti, the port from whence the bulk of the boxwood is shipped, that, though considerable quantities are still exported, it becomes annually worse in quality, and the supply for shipment at Poti must soon be exhausted. The export from the Abkassian forests is still prohibited by the Russian Government, but it is said that this restriction will shortly be removed. The writer of the report referred to describes a journey he made in 1873, through splendid forests of Normandy pine, birch, beech, oak, chestnut, walnut, and boxwood. With the opening of these forests it is estimated there will be a plentiful supply of prime boxwood for about fifteen years, after which that of inferior quality must be resorted to, as in Mingrelia. Boxwood, it seems, has also become quite recently an article of commerce from Taganrog to France and England; about 4,000 tons were shipped to these two countries during the year 1875, at a cost of from 8% to 10% per ton, free on board. This boxwood is drawn from Persian territory, on the southern coast of the Caspian Sea, across which it is conveyed to Astrachan, thence up the Volga to Tzaritzin, whence it passed over to Kalatch, on the Don, for Rostoff and Taganrog.

NO. 7, concluding vol. ii. series ii. (Science) of the *Proceedings of the Royal Irish Academy*, has just been published. It contains a report on Irish Hepaticæ, by Dr. David Moore; a revision of the species of *Abies* of Endlicher and Parlatore, and *Pseudotsuga* of Carrière and Bertrand, by Prof. M'Nab; contribution to the history of Dolomite, by Mr. E. Hardman; on Glucinum, by Prof. E. Reynolds; on the chemical changes in potato disease, by Rev. Prof. Jellett; on remains of *Cervus megaceros*, by G. Porte; on the detection and precipitation of phosphoric acid by ammoniac molybdate, by A. N. M'Alpine; on the product of the squares of the differences of the roots of a cubic equation, by Prof. Young; and on a new genus and species of sponge, by Prof. E. P. Wright.

THE February session of the Berlin Geographical Society was devoted to detailed reports from the lately returned African explorers, Dr. Pogge and Dr. Lenz. The former described his journey from Angola to Mossumbu, the chief town of the Watajombas, whose existence has hitherto been regarded as mythical. The difficulties of the route were few, and the climate in the interior healthful. Dr. Pogge's experience would seem to point out his route as one of the most desirable for future expeditions to use in attempting to reach the interior of the continent. Dr. Pogge stated his belief that the Casai or Casabi is the Upper Congo, and that the Lualaba flows into the Ogovai. A letter in Tuesday's *Times*, from an Angola paper, written by a Portuguese merchant, is of the same tenor. It states that a Portuguese, whose name is not given, has found the source of the Zaire, twenty days' march east from Malange, and one day's march from the capital of Dumbo Tembo. The river is known as Casai or Casabi till it crosses the country of Lunda, when it gets the name of Nzare. Livingstone, in a letter dated Cassangé, February 13, 1855, mentions the common belief there that the Casai and Quango join to the north of Cassangé, and form the Zaire or Congo. We seem to be getting near the solution of the problem. Dr. Lenz, at the same meeting, sketched rapidly the results of his three years' wanderings among the Oskebas of the Ogowai district, by whose assistance he was also able, although with the greatest difficulty, to penetrate to the Adooma land, and touch his farthest point to the east, Banjska. The interesting results of his anthropological and ethnological studies among the Oskebas, we hope to give more fully.

ON Monday evening, Gen. R. Strachey gave the first of a series of lectures on Scientific Geography at the Geographical Society. He traced the progress of Geographical Science, pointed out the wide field embraced by it at the present day, and showed its aims and its importance.

THE annual meeting of the American Geographical Society was held on January 16, Rev. H. W. Bellows, D.D., in the chair. The annual election of officers and members of the Council was held. Chief-Justice Daly was re-elected president, and delivered his annual address on the Geographical Work of the World for 1876. The address, of which an early copy has been forwarded to us, is one of great interest, and contains a comprehensive view of geographical work during 1876 in all departments and in all parts of the world. Mr. Daly criticises with some severity various statements as to previous explorers in the Report of Sir George Nares. He commends the plan proposed by Dr. Hayes some years ago, of carrying on polar exploration by establishing a station at Port Foulke, a plan substantially the same as that proposed by Capt. Howgate of the U.S. Signal Service, to which we referred in a recent number. Mr. Daly mentions the interesting fact that the first Geographical Society was probably that founded in Venice in 1688, under the name of "Society of Argonauts," followed a few years later by an association of the same kind established at Nuremberg. For English

readers one of the most valuable parts of this address is the account of the work of the various U.S. Surveys for 1876. We regret that space prevents us doing more than referring to this interesting address.

At the last session of the Berlin Academy a letter was read from Dr. J. M. Hildebrandt, travelling under the auspices of the Academy, who on December 10 was preparing to leave Mombassa, in Zanzibar, for an extensive expedition in the Kibuyin land. The chief aim of the undertaking will be to study the snowy regions of the lofty chain of mountains bordering on the coast-land. One of the first efforts will be directed to scaling the lofty summit of the Kenia.

Die Natur for February 12 contains a paper by Karl Emil Jung, "On the Family Conditions of the Australian Natives," in which he states some facts with regard to their marriage customs that deserve the attention of ethnologists.

No. 3 of the *Bulletin Trimestriel* of the Cairo Geographical Society contains a paper by Dr. Güssfeld on his exploration in West Africa, and a paper of great value by Col. Colston giving the results of his observations among the Bedouins of Sudan and Kordofan. Accompanying letters from Col. Gordon, which have been referred to by us already, are four maps of the course of the Nile in the region of the great lakes.

WE have received a copy of a lecture on the English Arctic Expedition given at the Scientific Club, Vienna, by Dr. Chavanne, forming one of a series of cheap popular scientific lectures which are being published by A. Hartleben, of Vienna.

SEVEN weekly meetings of the Cambridge University Natural Science Club were held during the last (October) term, when the following papers were read:—"On Analogies between the Senses in Man," by J. Allen (St. John's); "The Pectoral and Pelvic Girdles," by T. W. Bridge, B.A. (Trinity); "The Probable Age of the Earth," by E. B. Sargant (Trinity); "Caves," by J. E. Marr (St. John's); "The General Anatomy and Functions of the Cerebrum," by O. A. Browne, B.A. (Trinity); "Fermentation," by A. Hill (Downing); "The Chemical Composition of the Albumenoids," by S. H. Vines, B.A. (Christ's). Seven meetings are arranged to take place during the present (Lent) term. There are nineteen members in residence.

PROF. OGDEN ROOD has called attention (*Am. Journ. of Sci. and Arts*) to some cases in his own experience, which, along with an experience described by Tait, seem to prove that our retinal apparatus for reception of waves of light of medium length is more liable to be strained by nervous shocks or by prolonged excitation, than that designed for reception of waves of greater or less length. Thus nervous derangement and prolonged excitation may produce temporary green colour blindness. The effects Prof. Rood observed were in recovering from effects of chloroform, exposure to bright white light out of doors (when white objects seemed at first purplish red), and convalescence from typhoid fever (when white objects appeared of a weak orange yellow).

THE works in connection with the Paris Exhibition of 1878 are progressing with surprising activity. The buildings, which must be ready in the end of March by contract, will be completed before the appointed time.

In the February Session of the Wurtemberg Anthropological Society, a somewhat novel communication was presented by Prof. v. Zech, the statistician of the Society. He instituted a careful comparison between the returns of the late parliamentary election and the anthropological statistics of the kingdom collected during the past year. The majorities of the government party were invariably obtained in districts where light-coloured

hair and eyes predominate. The *Schwarzen*, the Ultramontanes, formed a medium class with regard to complexion, &c., and were not recruited from among the black-haired and the black-eyed, who seemed on the contrary to be the champions of social democracy.

THE *American Naturalist* for February contains an Account of the Natural History of the Fanning Group of Islands, by Dr. T. H. Streets. These are four coral islands in the Pacific, stretching from 1° 57' N. to 5° 49' N., and from 157° 27' to 162° 11' W. They do not seem to have been yet grouped on any chart.

A SECOND edition, revised to December 31, 1876, has been published of the "Catalogue of the Publications of the United States Geological and Geographical Survey of the Territories." Since 1867, forty-one publications have been issued, besides twenty-five maps. A considerable list of works in process of publication and in preparation is also given.

AT the meeting of the Brighton and Sussex Natural History Society, held on the 8th inst., an interesting paper by Miss Crane was read, "On Certain Genera of Living Fish and their Fossil Affinities." It is reported in full in the *Sussex Daily News* of February 10.

THE additions to the Zoological Society's Gardens during the past week include a Macaque Monkey (*Macacus cynomolgus*) from India, presented by Master R. Wallace; two Chinese Geese (*Anser cygnoides*) from China, presented by Mr. A. H. Medhurst; a Common Raven (*Corvus corax*), European, presented by Mrs. Nathan; a Common Magpie (*Pica caudata*), European, presented by Miss Jessie Bovill; a Rough-legged Buzzard (*Archibuteo lagopus*), European, presented by Mr. W. R. Paxton; a Common Marmoset (*Haipale jacchus*) from Brazil, a Common Paradoxure (*Paradoxurus typus*) from India, deposited; two Maned Geese (*Bernicla jubata*) from Australia, a Red-vented Cockatoo (*Cacatua philippinarum*) from the Philippine Isles, purchased.

SCIENTIFIC SERIALS

In the January number of the *Quarterly Journal of Microscopical Science* we find that Dr. Klein has superseded Dr. Payne, as one of the editors. Mr. H. N. Moseley has two valuable papers, the first on the colouring matter of various animals, and especially of deep sea forms dredged by H.M.S. *Challenger*, in which a large number of fresh band-producing colours from sponges, Coelenterata, Echinoderms, Annulosa, and Mollusca are described with figures of their spectra. In the second, *Stylochus pelagicus*, a new species of Pelagic Planarian, is described, with notes on other pelagic species, together with the larval forms of Thysanozoon, and of a gymnostomatous Pteropod.—Dr. Klein, in a note on a method of preparing the cornea by the employment of caustic potash and lunar caustic.—Mr. Kidd describes Schiefferdecker's Microtome, and gives an epitome of a paper by Engelmann on "Contractility and Double Refraction."—Mr. Peek has an important paper on the minute structure of the gills of Lamellibranch molluscs, the investigation having been undertaken in the Histological Laboratory of Exeter College, Oxford, at the instigation of Prof. Lankester. The filamentary gills of *Arca* and *Mytilus* are shown to explain the nature of the more complicated organ in *Anodon*, the most simple type being filaments bent on themselves at their middle points, outwards for the outer gills, and inwards for the inner, so that in section they form a W.—The last paper is a *résumé*, by Mr. Archer, of recent contributions to our knowledge of freshwater Rhizopoda.

Journal de Physique, January.—On the phenomena of induction, by M. Mouton.—Chromatic polarisation of tufts in biaxial crystals, by M. Maré.—Note on the experiment of the Franklin portrait; a new glass breaker, by M. Barat.—On absorption of radiant heat by aqueous vapour, by M. Hagu.—Note on the employment and choice of spectacles designed to correct bad vision, by M. Dubois.